REMARKS

As an initial matter, the office action indicated that the Information Disclosure Statement, form 1449, and copies of the documents cited therein were not received by the Examiner. A copy of the IDS submission which included with the new patent application package is included for consideration by the Examiner.

Claims 1, 3-7, and 9 are pending in the application. Claims 3, 5, 6, and 9 have been amended-. Claims 2 and 8 have been cancelled without prejudice or disclaimer. No new matter has been added by virtue of the amendments made to the claims.

The present invention provides optical data recording medium comprising a transparent substrate, a thin film layer formed on the transparent substrate and a protective film formed on the thin film layer wherein the protective film is composed of a resin. The thin film layer is a single layered or multilayered film having one or more layers selected from a dielectric film, a recording film and a reflective film. The expansion coefficient under humidity of the protective film is greater than that of the transparent substrate and the expansion coefficient under humidity of the protective film is less than 1.7×10^{-4}(1/%). The term "expansion coefficient under humidity" is defined in claim 1 to be the [ratio of expansion (1/%) where a difference of relative humidity (vapor content/saturated vapor amount at 25°C) is increased by 1%].

None of the references relied upon by the office action teach or suggest an optical data recording medium which possesses an expansion coefficient under humidity of the protective film is greater than that of the transparent substrate, each of which is less than 1.7×10^{-4}(1/%).

Claims 1-9 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Tajima (JP 2000-311381).

The rejection is traversed.

The office action asserts that the embodiments recited in Table 5 of Tajima satisfy the limitations of the instantly claimed invention. Applicants respectfully disagree. Table 5 of the Tajima reference recites film thickness, Young's Modulus, Linear Expansion Coefficient and Moisture Permeation Degree. Tajima neither discloses nor suggests a substrate film or a protective film of an optical recording media which has an expansion coefficient under humidity of less than 1.7×10^{-4}(1/%).

Applicants note that the "Moisture Permeation Degree" recited in Table 5 of Tajima relates to extent to which a material is permeated by water and is typically measured in (g H_2O/m^2·day).

In contrast, the term "expansion coefficient under humidity" relates to the rate of expansion in a material caused by a change in humidity. More particularly, the term relates to the ratio of expansion of a film (1/%) when the relative humidity (defined as vapor content/saturated vapor at 25°C) is increased by 1%.

Thus, the terms "moisture permeation degree" and "expansion coefficient under humidity" refer to completely different properties.

Thus claims 1 and 7 are patentable over Tajima. Claims 3-6 and 9 depend from either claim 1 or claim 7 and are therefore also patentable over Tajima. in which U.S. Patent 6,657,948, issued to Tajima et al, claims priority to JP 2000-045449 (which application was published as JP 2000-311381).

Claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Murakami (U.S. Patent 5,452,272).

Claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Inuoue (U.S. Patent 4,590,493).

Claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Ohta (U.S. Patent 5,453,884).

Claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Yokoyama (U.S. Patent 5,714,222).

Claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Yoshioka (U.S. Patent 5,674,649).

Claims 1-4 and 6 were rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Tachibana (U.S. Patent 5,102,709).

The cited documents do not teach or suggest Applicants' claimed invention in a manner sufficient to sustain a rejection under 35 U.S.C. §102 or §103.

As the office action is understood, each of the cited documents is relied upon because they allegedly teach an optical recording medium which uses a substrate and/or protective layer composed of an urethane, epoxy, polyester or polyether acrylate.

For example, Murakami, et al. discloses an optical recording medium which uses a polyurethane acrylate resin overcoating. Murakami, et al. does not describe the expansion properties of any layer of the recited overcoating and more particularly does not teach or suggest controlling the warp or tilt of the optical recording media by modulating the expansion coefficient under humidity of one or more of the layers constituting the optical recording media.

In contrast to the claims presented herein, the present invention is drawn to a novel optical recording media in which the expansion coefficient under humidity of the substrate and the protective layer are modulated to prevent warp of the media. Applicants have surprisingly discovered that incorporation of a protective film having a expansion coefficient under humidity

of less than 1.7×10^{-4}(1/%), which coefficient is greater than that of the transparent substrate. Thus, such optical recording media offer improved resistance to deformation or warp at various temperatures or humidity.

As noted above, Murakami et al. generically disclose an optical recording media having a polyurethane-acrylate overcoating, but fail to teach or even suggest use resins having specified expansion coefficient under humidity to prevent media deformation.

Moreover, none of the cited documents, taken alone or in combination teach or suggest optical recording media in which the substrate or protective layer has an expansion coefficient under humidity of less than 1.7×10^{-4}(1/%). Furthermore, none of the cited documents, taken alone or in combination, teach or suggest optical recording media in which the expansion coefficient under humidity of the protective film is greater than that of the transparent substrate.

Accordingly, each of the rejections is properly withdrawn.

For example, see *In re Marshall*, 198 USPQ 344, 346 (CCPA 1978) ("[r]ejections under 35 U.S.C. §102 are proper only when the claimed subject matter is identically disclosed or described in the prior art.") Additionally, it is well-known that to establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference(s) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143.

There is no suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the cited reference to arrive at the claimed invention, nor is there a reasonable expectation of success.

Thus, for at least the reasons discussed herein, claim 1 is patentable over each of the cited documents taken alone or in combination . Claims 3-6 and 9 depend from claim 1 or claim 7 and are therefore also patentable over any combination of the cited documents.

Claims 1-9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over the allowed claims of copending U.S. Patent Application No. 09/512,253 (Which has not issued as U.S. Patent 6,657,948).

As noted above, it is a feature of the present invention that the *expansion coefficient under humidity [ratio of expansion (1/%) where a difference of relative humidity (vapor content/saturated vapor amount at 25°C) is increased by 1%] of the protective film is greater than that of the transparent substrate and smaller than* 1.7×10^{-4}*(1/%).* See, e.g., independent claims 1 and 7 of the present application. Applicants have surprisingly discovered that by modulating the expansion coefficient under humidity of the substrate and the protective film, deformation and/or warp of the optical recording media of the instant application is prevented.

According to U.S. Patent No. 6,657,948, which issued from allowed U.S. patent application number 09/512,253, the *thickness, Young's modulus, and a linear expansion coefficient are set to their respective desired values in each of said substrate, thin film layer, and thin film protecting film, so that a neutral plane of deformation in a thickness direction caused by a temperature change being present in a vicinity of said thin film layer.* Thus, issued patent '948 does not teach or suggest optical recording media in which the expansion coefficient under humidity is modulated to prevent deformation or warp of the media.

As such, it is respectfully submitted that the present application is patentably distinct from the issued claims of the '948 patent.

Reconsideration and withdrawal of the rejection is requested.

Claims 1-9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being allegedly unpatentable over claim 1-9 of copending U.S. Patent Application No. 10/002,949.

The double patenting rejection is not proper.

As noted above, it is a feature of the present invention that the *expansion coefficient under humidity [ratio of expansion (1/%) where a difference of relative humidity (vapor content/saturated vapor amount at 25°C) is increased by 1%] of the protective film is greater than that of the transparent substrate and smaller than* 1.7×10^{-4}*(1/%)*. See, e.g., independent claims 1 and 7 of the present application. Applicants have surprisingly discovered that by modulating the expansion coefficient under humidity of the substrate and the protective film, deformation and/or warp of the optical recording media of the instant application is prevented.

In contrast, the '949 application, which was filed on November 15,2001 and is commonly assigned, is directed to optical recording media at least either one of a linear expansion coefficient and a Young's modulus of the protective film is greater than that of the transparent substrate, the linear expansion coefficient of the protective film being greater than 7.0×10^{-5} (1/°C) and smaller than 5.0×10^{-4} (1/°C).

Clearly the '949 application is directed to related by distinct technology. That is, both the instant application and the '949 application are directed to optical recording media which are resistant to deformation or warping. However, the features of the instant invention and the '949 application are different, e.g., regulating warping by selecting materials based on their expansion coefficient under humidity instead of materials selected for their Young's modulus and/or linear

expansion coefficient. Thus, Applicants would not be benefiting from an "unjustified timewise extension of the right toe exclude granted by a patent" (MPEP §804 citing *In re Schneller*, 397 F.2d 350 (1968)).

As such, it is respectfully submitted that the present application is patentably distinct from the issued claims of the '949 application.

Reconsideration and withdrawal of the rejection is requested.

Reconsideration and allowance of claims 1, 3-6, and 9 is respectfully requested in view of the foregoing discussion. This case is believed to be in condition for immediate allowance. Applicant respectfully requests early consideration and allowance of the subject application.

If for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Should the Examiner wish to discuss any of the amendments and/or remarks made herein, the undersigned agent would appreciate the opportunity to do so.

Respectfully submitted,

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